27

KERNAN WELCOME

Stoves, Ranges
Furnaces and Registers

KERNAN

SHELL BAR GRATE

(Patent Applied For)

ID CAT 1903 Syracuse...

ATHENAEUM OF PHILADELPHIA

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"KERNAN WELCOME"

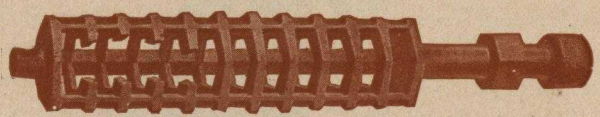
HARD COAL FURNACES

(Upon application will mail Catalogue of Soft Coal Furnaces)

With KERNAN HOT AIR BLAST and KERNAN SHELL BAR ROTATING & REVOLVING GRATE

(Patents Applied For)

KERNAN
Shell Bar Grate



SYRACUSE STOVE WORKS

FRANCIS KERNAN . . . . *President*
WILLIAM T. BAKER . . . *Vice-President*
JOSEPH F. KERNAN . *Secretary and Treasurer*

100 North Geddes Street
SYRACUSE, NEW YORK

231 Water Street
NEW YORK CITY

No. 103 *May 23, 1903*

"KERNAN WELCOME"
K-O, K, and K-D FURNACES

KERNAN GRATE

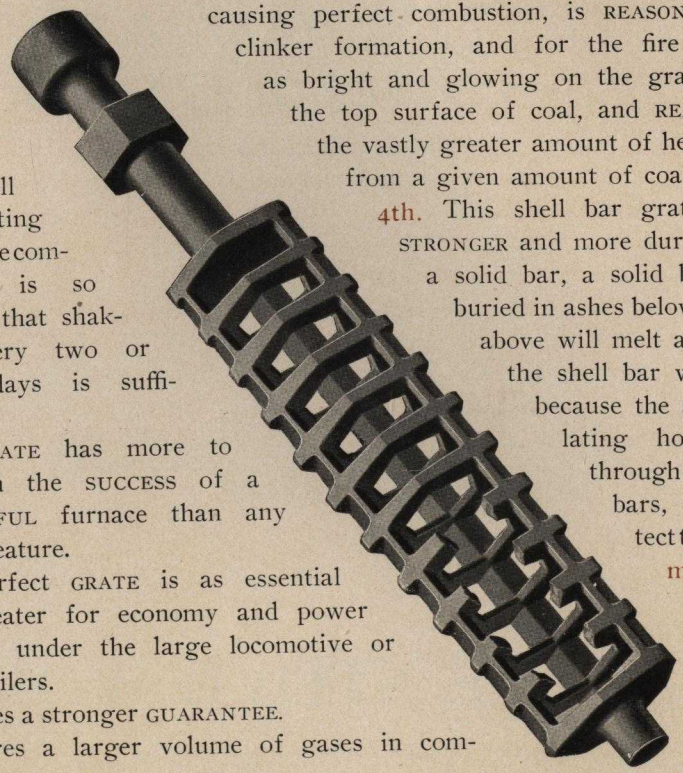
(Patent applied for)

The valuable improvements and advantages in the KERNAN GRATE are

1st. It is a shell bar rotating and revolving grate.

2d. It admits the free passage of air in and through all sides of the grate, carrying the air currents through the entire length of each bar and across the entire grate surface, and through the central hot air chamber of the grate, creating perfect combustion, adding 25 per cent. or more heat to the fuel gases, without clinkers or other evidence of waste in the ash pit.

3d. By this free passage and ABUNDANT supply of air into and through the grate, becoming superheated and in contact with the fire surface causing perfect combustion, is REASON for no clinker formation, and for the fire burning as bright and glowing on the grate as on the top surface of coal, and REASON for the vastly greater amount of heat power from a given amount of coal.



4th. This shell bar grate is far STRONGER and more durable than a solid bar, a solid bar grate buried in ashes below and fire above will melt and warp, the shell bar will stand because the air circulating horizontally through all the bars, will protect them from melting, warping, or twisting.

5th. With our shell bar rotating GRATE the combustion is so perfect, that shaking every two or three days is sufficient.

6th. The GRATE has more to do with the SUCCESS of a SUCCESSFUL furnace than any other feature.

7th. The perfect GRATE is as essential to a heater for economy and power as it is under the large locomotive or other boilers.

8th. It assures a stronger GUARANTEE.

9th. It assures a larger volume of gases in combustion.

Order a "KERNAN WELCOME," K-O, K or K-D FURNACE. Secure the agency and control the sale of a furnace superior in all points to ALL others. A furnace that has NEW FEATURES OF MERIT which explained to a customer will be appreciated; the twentieth century is not the season to talk of heaters made for fifty years. No other heaters made like the "KERNAN WELCOME," K-O, K and K-D.

#245932108
10-21-91
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1903
Syracuse

"KERNAN WELCOME"

K-O, K, and K-D FURNACES

To the Trade

All heaters shipped at owners' risk on what are termed "released freight rates" (unless specially specified in the order to the contrary), in order to secure the lowest rates of freight; and when we make delivery in good order to the transportation company and receive their receipt, the goods become the property of the consignee, and any claims for damages or loss incident to their delivery must be made on them. All claims for correction of any nature must be made within ten days of receipt of goods. In the absence of definite shipping directions we will send by regular route.

We positively refuse to ship goods "on consignment" or "on sale." We make shipments only on positive sales.

Orders through our traveling representatives must state all conditions and agreements, and must bear the purchaser's signature. No verbal agreements are recognized. Goods must not be returned to us without our consent, and when returned on these conditions, if in good order, will be credited at ten per cent. (10%) less than the purchase price, and with expenses deducted. All orders subject to the approval of the house. Prices and discounts subject to change without notice.

In furnishing castings to replace breakage in transit, we will make a charge of one-half price.

No countermands will be accepted.

We guarantee all our heaters to be made of the best materials and perfect in workmanship.

TERMS

Our terms are net cash sixty days, subject to the usual cash discount, unless otherwise agreed. If longer than sixty days is stipulated, or special agreement made, it is with the distinct understanding, as part of such stipulation or agreement, that should the account of the purchaser, at any time, be considered unsafe, our right to any and immediate legal action, and remedy shall not be prevented by such special agreement, but the whole account of said purchaser shall become due, payable, and collectible, at once, notwithstanding notes or securities have been taken, or extension given.

Payment must be made in par funds.

All accounts subject to sight draft at maturity.

Interest will be charged upon invoices not paid when due.

Repairs strictly net cash.

We sell to the trade only

"KERNAN WELCOME"

K-O and K FURNACES

In presenting these lines of furnaces we are offering an article possessing more points of heating capacity, durability and economy in fuel than any furnace which heretofore has been placed on the market.

1st. Without adding to the cost, the increased heating capacity is accomplished by increasing the radiating surface and the diameter of casing, thus causing a greater volume of warm air and a larger area of air space within the air chamber.

2nd. Greater durability, by reducing the weight in those parts that do not come in contact with the fire, and increasing the thickness of the metal or weight of other parts.

3rd. Economy of fuel, by the construction of the **Kernan Shell Bar Rotating and Revolving Grate** which adds 50 per cent. more of air passing "in it and through it" than any other grate made.

The perfect combustion of anthracite coal depends largely on the amount of air that comes in contact with the fire bed or fuel. Experience and history pertaining to the production of grates has been to construct one which, while being strong and durable, possesses the greatest amount of air area. The durability of the Kernan grate has been thoroughly demonstrated by the most severe tests, and a proof of the large percentage of air opening "in it and through it" is given below by a test made by Professor John E. Sweet, Professor of Practical Mechanics, Cornell University.

SYRACUSE, N. Y., Nov. 17th, 1902.

Mr. Francis Kernan,
President Syracuse Stove Works,
Syracuse, N. Y.

DEAR SIR:—The following are the areas inside the rings of your various grates and the air space in inches and percentages:

Grate Number	Fire Surface	Air Space	Percentages of Air Area
18–30	133 sq. in.	67 sq. in.	50 per cent.
20–34	177 "	85 "	48 "
20–36	177 "	85 "	48 "
22–38	208 "	100 "	48 "
24–42	262 "	146 "	56 "
26–46	314 "	148 "	47 "
28–50	380 "	190 "	50 "

We ask you to give a most careful examination of our furnaces. We solicit your inquiry for prices and discounts and the result will surely be to your interest. Any dealer securing the agency of the Kernan Welcome Furnace controls the sale of a heater superior to any other on the market, and as the Kernan Shell Bar Grate is protected by a patent, a dealer will have the absolute control of these repairs, both against his competitors and against those who make it a business to manufacture repairs.

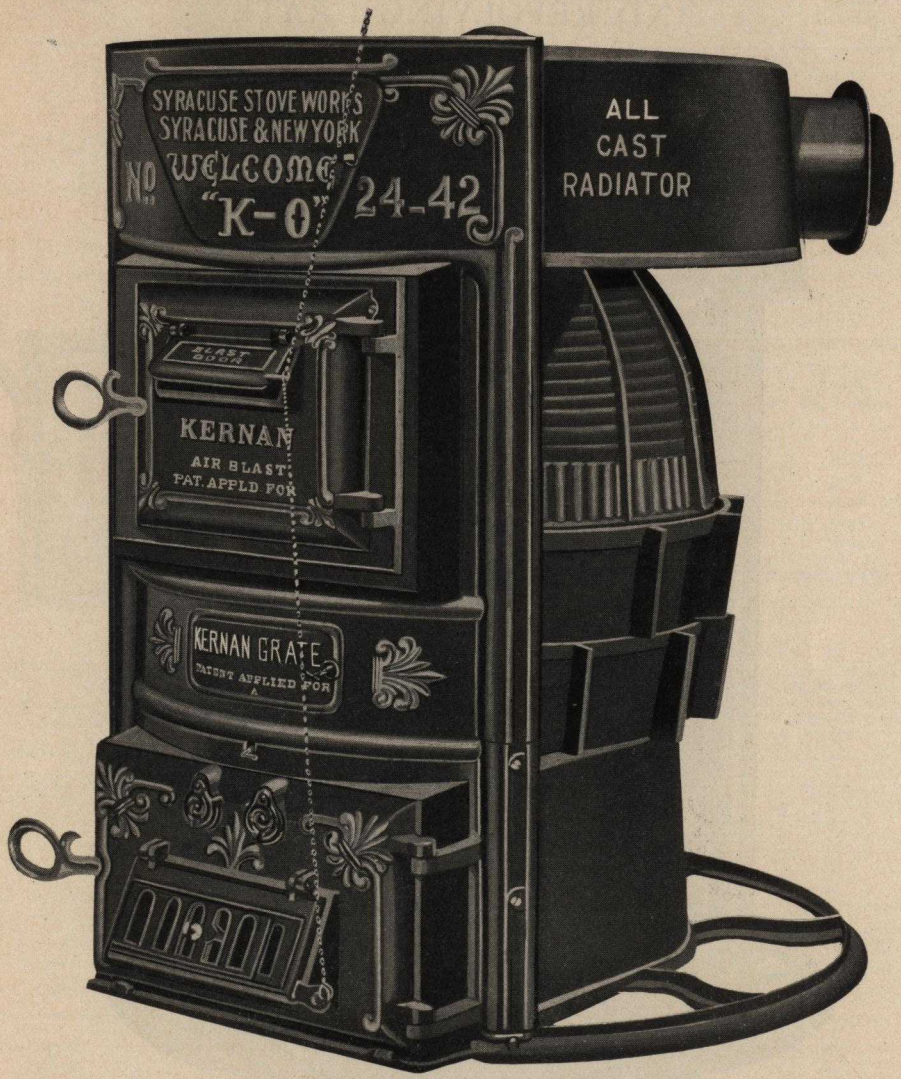
"KERNAN WELCOME"

K-O FURNACE

WITH

KERNAN

SHELL BAR ROTATING and REVOLVING GRATE



KERNAN AIR BLAST

(Patents applied for)

Sprays the heated air downwards over the fire

We sell to the trade only

"KERNAN WELCOME"

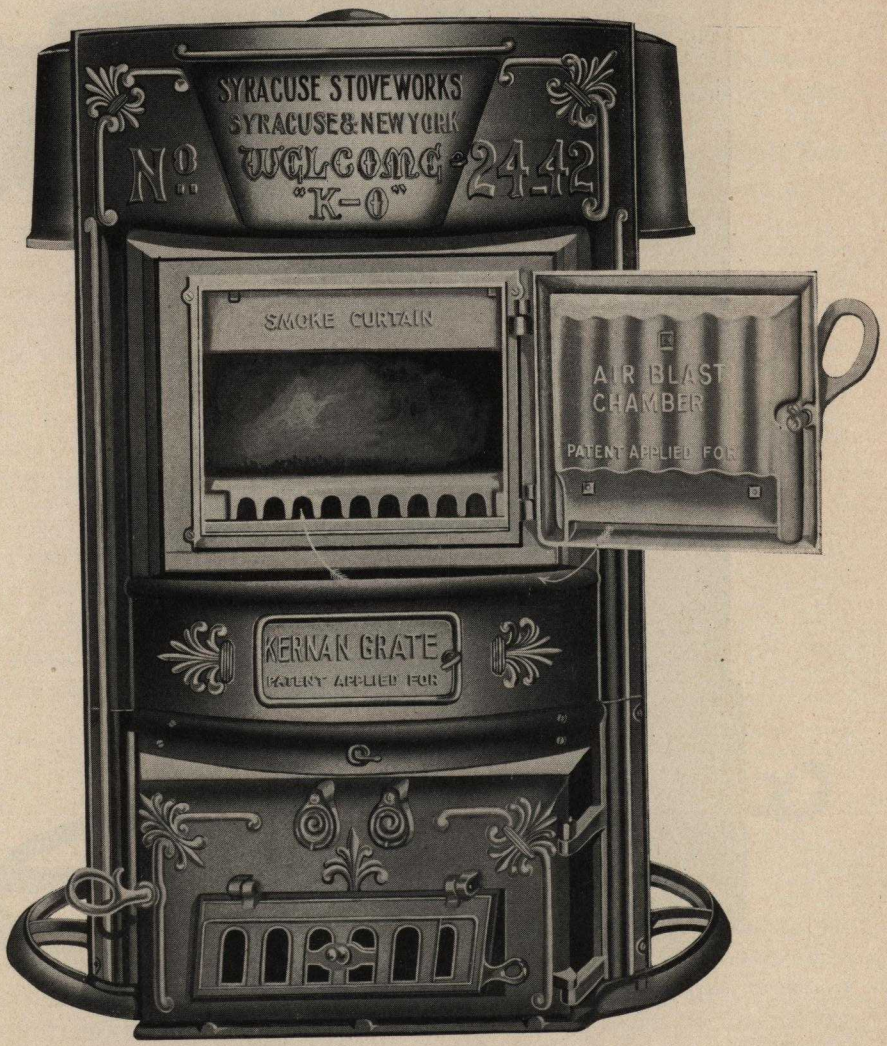
K-O FURNACE

WITH

KERNAN

AIR BLAST AND SHELL BAR ROTATING AND REVOLVING GRATE

(Patents applied for)



Note Great Radiating Surface and Massive Construction

ALL CAST RADIATOR

We sell to the trade only

"KERNAN WELCOME"

K-O FURNACES

WITH ALL CAST RADIATOR

Designating Number	List Price Castings Only	List Price Corrugated Tin and Asbestos Lined Casings	List Price Casing Tops Only		List Price Skirt and Legs Per Set	List Price Cold Air Plates Per Set
			FLAT	CONE		
"K-O" 20-36	$150.00	$24.75	$12.50	$14.00	$4.75	$6.75
"K-O" 22-38	170.00	26.00	13.00	15.00	5.00	7.00
"K-O" 24-42	210.00	28.50	16.00	17.50	6.00	8.00
"K-O" 26-46	260.00	31.00	17.50	19.00	7.00	9.00
"K-O" 28-50	325.00	35.00	19.00	22.00	8.00	10.00

Discount..... Subject to change without notice.

THIS System of Numbering shows

First: The Diameter of Fire Pots
Second: The Diameter of Casings

DIMENSIONS

Designating Number	Diameter of Fire Pot	Depth of Fire Pot	Diameter of Casings	Height of Castings	Diameter of Smoke Pipe	Cold Air Supply Sq. Inches
"K-O" 20-36	20 in.	12 in.	36 in.	4 ft. 1 in.	8 in.	400
"K-O" 22-38	22 in.	13 in.	38 in.	4 ft. 2 in.	8 in.	450
"K-O" 24-42	24 in.	13 in.	42 in.	4 ft. 3 in.	8 in.	500
"K-O" 26-46	26 in.	14 in.	46 in	4 ft. 5 in.	9 in.	600
"K-O" 28-50	28 in.	14 in.	50 in.	4 ft. 7 in.	9 in.	700

HEATING CAPACITIES

CUBIC FEET

Designating Number	For New York City and Vicinity Also Territory South	For Chicago or Northern Territory	Approximately these Furnaces will heat an ordinary dwelling of the following number of Rooms
"K-O" 20-36	14,000 to 20,000	14,000 to 17,000	5 to 7 rooms
"K-O" 22-38	18,000 to 22,000	17,000 to 21,000	6 " 8 "
"K-O" 24-42	22,000 to 28,000	21,000 to 27,000	8 " 10 "
"K-O" 26-46	28,000 to 34,000	27,000 to 33,000	10 " 12 "
"K-O" 28-50	34,000 to 42,000	33,000 to 40,000	12 " 14 "

Number	Length to Cut Galvanized Iron for Casings Including 2 inch Lap		Width to Cut Galvanized Iron for Casings	
	Bottom Section	Top Section	Bottom Section	Top Section
20-36	7 ft. 2½ in.	7 ft. 2½ in.	21⅛ in.	27½ in.
22-38	7 ft. 8½ in.	7 ft. 8½ in.	21½ in.	28⅜ in.
24-42	8 ft. 7¼ in.	8 ft. 7¼ in.	21½ in.	29 in.
26-46	9 ft. 5¼ in.	9 ft. 5¼ in.	22 in.	29 in.
28-50	10 ft. 3¼ in.	10 ft. 3¼ in.	22⅜ in.	29⅛ in.

All our Castings are lined with corrugated tin and asbestos

We sell to the trade only

"KERNAN WELCOME"

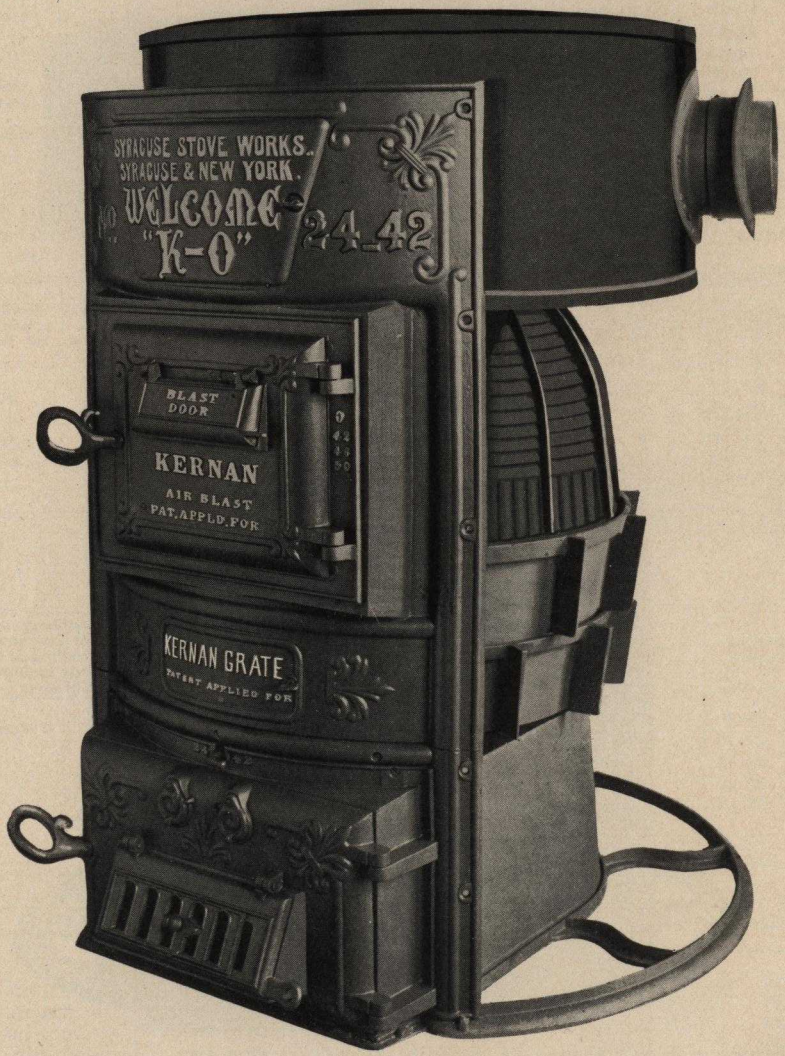
K-O FURNACES

WITH

KERNAN

AIR BLAST AND SHELL BAR ROTATING AND REVOLVING GRATE

(Patents Applied For)



Made in Five Sizes

HEAVY STEEL PLATE RADIATOR

We sell to the trade only

"KERNAN WELCOME"

K-O FURNACES

WITH STEEL PLATE RADIATOR

Designating Number	List Price Castings Only	List Price Corrugated Tin and Asbestos Lined Casings	List Price Casing Tops Only		List Price Skirt and Legs Per Set	List Price Cold Air Plates Per Set
			FLAT	CONE		
"K-O" 20-36	$142.00	$24.75	$12.50	$14.00	$4.75	$6.75
"K-O" 22-38	161.00	26.00	13.00	15.00	5.00	7.00
"K-O" 24-42	199.00	28.50	16.00	17.50	6.00	8.00
"K-O" 26-46	247.00	31.00	17.50	19.00	7.00	9.00
"K-O" 28-50	311.00	35.00	19.00	22.00	8.00	10.00

Discount -- ----Subject to change without notice.

THIS System of Numbering shows

DIMENSIONS

First: The Diameter of Fire Pots
Second: The Diameter of Casings

Designating Number	Diameter of Fire Pot	Depth of Fire Pot	Diameter of Casings	Height of Castings	Diameter of Smoke Pipe	Cold Air Supply Sq. Inches
"K-O" 20-36	20 in.	12 in.	36 in.	4 ft. 4 in.	8 in.	400
"K-O" 22-38	22 in.	13 in.	38 in.	4 ft. 5 in.	8 in.	450
"K-O" 24-42	24 in.	13 in.	42 in.	4 ft. 6 in.	8 in.	500
"K-O" 26-46	26 in.	14 in.	46 in	4 ft. 8 in.	9 in.	600
"K-O" 28-50	28 in.	14 in.	50 in.	4 ft. 10 in.	9 in.	700

HEATING CAPACITIES

CUBIC FEET

Designating Number	For New York City and Vicinity Also Territory South	For Chicago or Northern Territory	Approximately these Furnaces will heat an ordinary dwelling of the following number of Rooms
"K-O" 20-36	14,000 to 20,000	14,000 to 17,000	5 to 7 rooms
"K-O" 22-38	18,000 to 22,000	17,000 to 21,000	6 " 8 "
"K-O" 24-42	22,000 to 28,000	21,000 to 27,000	8 " 10 "
"K-O" 26-46	28,000 to 34,000	27,000 to 33,000	10 " 12 "
"K-O" 28-50	34,000 to 42,000	33,000 to 40,000	12 " 14 "

Number	Length to Cut Galvanized Iron for Casings Including 2 inch Lap		Width to Cut Galvanized Iron for Casings	
	Bottom Section	Top Section	Bottom Section	Top Section
20-36	7 ft. 2½ in.	7 ft. 2½ in.	21⅛ in.	27½ in.
22-38	7 ft. 8½ in.	7 ft. 8½ in.	21½ in.	28⅜ in.
24-42	8 ft. 7¼ in.	8 ft. 7¼ in.	21½ in.	29 in.
26-46	9 ft. 5¼ in.	9 ft. 5¼ in.	22 in.	29 in.
28-50	10 ft. 3¼ in.	10 ft. 3¼ in.	22⅜ in.	29⅛ in.

All our casings are lined with corrugated tin and asbestos

On account of extra height of steel radiator in making top or cone of casing add three inches to lower flange

"KERNAN WELCOME"

K FURNACES

WITH

KERNAN

SHELL BAR ROTATING AND REVOLVING GRATE

(Patent Applied For)

The staggered wing fire pot gives more heating surface and greater durability

We sell to the trade only

"KERNAN WELCOME"

K FURNACES

WITH ALL CAST RADIATOR

Designating Number	List Price Castings Only	List Price Corrugated Tin and Asbestos Lined Casings	List Price Casing Tops Only		List Price Skirt and Legs Per Set	List Price Cold Air Plates Per Set
			FLAT	CONE		
"K" 20-36	$138.00	$24.75	$12.50	$14.00	$4.75	$6.75
"K" 22-38	160.00	26.00	13.00	15.00	5.00	7.00
"K" 24-42	200.00	28.50	16.00	17.50	6.00	8.00
"K" 26-46	245.00	31.00	17.50	19.00	7.00	9.00
"K" 28-50	300.00	35.00	19.00	22.00	8.00	10.00

Discount ..... Subject to change without notice.

THIS System of Numbering shows

DIMENSIONS

First: The Diameter of Fire Pots
Second: The Diameter of Casings

Designating Number	Diameter of Fire Pot	Depth of Fire Pot	Diameter of Casings	Height of Castings	Diameter of Smoke Pipe	Cold Air Supply Sq. Inches
"K" 20-36	20 in.	12 in.	36 in.	4 ft. 1 in.	8 in.	400
"K" 22-38	22 in.	13 in.	38 in.	4 ft. 2 in.	8 in.	450
"K" 24-42	24 in.	13 in.	42 in.	4 ft. 3 in.	8 in.	500
"K" 26-46	26 in.	14 in.	46 in	4 ft. 5 in.	9 in.	600
"K" 28-50	28 in.	14 in.	50 in.	4 ft. 7 in.	9 in.	700

HEATING CAPACITIES

CUBIC FEET

Designating Number	For New York City and Vicinity Also Territory South	For Chicago or Northern Territory	Approximately these Furnaces will heat an ordinary dwelling of the following number of Rooms
"K" 20-36	14,000 to 20,000	14,000 to 17,000	5 to 7 rooms
"K" 22-38	18,000 to 22,000	17,000 to 21,000	6 " 8 "
"K" 24-42	22,000 to 28,000	21,000 to 27,000	8 " 10 "
"K" 26-46	28,000 to 34,000	27,000 to 33,000	10 " 12 "
"K" 28-50	34,000 to 42,000	33,000 to 40,000	12 " 14 "

	Length to Cut Galvanized Iron for Casings Including 2 inch Lap		Width to Cut Galvanized Iron for Casings	
Number	Bottom Section	Top Section	Bottom Section	Top Section
20-36	7 ft. 2½ in.	7 ft. 2½ in.	21⅛ in.	27½ in.
22-38	7 ft. 8½ in.	7 ft. 8½ in.	21½ in.	28⅜ in.
24-42	8 ft. 7¼ in.	8 ft. 7¼ in.	21½ in.	29 in.
26-46	9 ft. 5¼ in.	9 ft. 5¼ in.	22 in.	29 in.
28-50	10 ft. 3¼ in.	10 ft. 3¼ in.	22⅜ in.	29⅛ in.

All our casings are lined with corrugated tin and asbestos

We sell to the trade only

"KERNAN WELCOME"

K FURNACES

WITH

KERNAN

SHELL BAR ROTATING and REVOLVING GRATE

(Patent Applied For)

EXTRA LARGE FEED DOOR FOR USING WOOD

We sell to the trade only

"KERNAN WELCOME"

K FURNACES

WITH STEEL PLATE RADIATOR

Designating Number	List Price Castings Only	List Price Corrugated Tin and Asbestos Lined Casings	List Price Casing Tops Only		List Price Skirt and Legs Per Set	List Price Cold Air Plates Per Set
			FLAT	CONE		
"K" 20-36	$130.00	$24.75	$12.50	$14.00	$4.75	$6.75
"K" 22-38	151.00	26.00	13.00	15.00	5.00	7.00
"K" 24-42	189.00	28.50	16.00	17.50	6.00	8.00
"K" 26-46	232.00	31.00	17.50	19.00	7.00	9.00
"K" 28-50	286.00	35.00	19.00	22.00	8.00	10.00

Discount.....Subject to change without notice.

THIS System of Numbering shows

DIMENSIONS

First: The Diameter of Fire Pots
Second: The Diameter of Casings

Designating Number	Diameter of Fire Pot	Depth of Fire Pot	Diameter of Casings	Height of Castings	Diameter of Smoke Pipe	Cold Air Supply Sq. Inches
"K" 20-36	20 in.	12 in.	36 in.	4 ft. 4 in.	8 in.	400
"K" 22-38	22 in.	13 in.	38 in.	4 ft. 5 in.	8 in.	450
"K" 24-42	24 in.	13 in.	42 in.	4 ft. 6 in.	8 in.	500
"K" 26-46	26 in.	14 in.	46 in	4 ft. 8 in.	9 in.	600
"K" 28-50	28 in.	14 in.	50 in.	4 ft. 10 in.	9 in.	700

HEATING CAPACITIES

CUBIC FEET

Designating Number	For New York City and Vicinity Also Territory South	For Chicago or Northern Territory	Approximately these Furnaces will heat an ordinary dwelling of the following number of Rooms
"K" 20-36	14,000 to 20,000	14,000 to 17,000	5 to 7 rooms
"K" 22-38	18,000 to 22,000	17,000 to 21,000	6 " 8 "
"K" 24-42	22,000 to 28,000	21,000 to 27,000	8 " 10 "
"K" 26-46	28,000 to 34,000	27,000 to 33,000	10 " 12 "
"K" 28-50	34,000 to 42,000	33,000 to 40,000	12 " 14 "

Number	Length to Cut Galvanized Iron for Casings Including 2 inch Lap		Width to Cut Galvanized Iron for Casings	
	Bottom Section	Top Section	Bottom Section	Top Section
20-36	7 ft. 2½ in.	7 ft. 2½ in.	21⅛ in.	27½ in.
22-38	7 ft. 8½ in.	7 ft. 8½ in.	21½ in.	28⅜ in.
24-42	8 ft. 7¼ in.	8 ft. 7¼ in.	21½ in.	29 in.
26-46	9 ft. 5¼ in.	9 ft. 5¼ in.	22 in.	29 in.
28-50	10 ft. 3¼ in.	10 ft. 3¼ in.	22⅜ in.	29⅛ in.

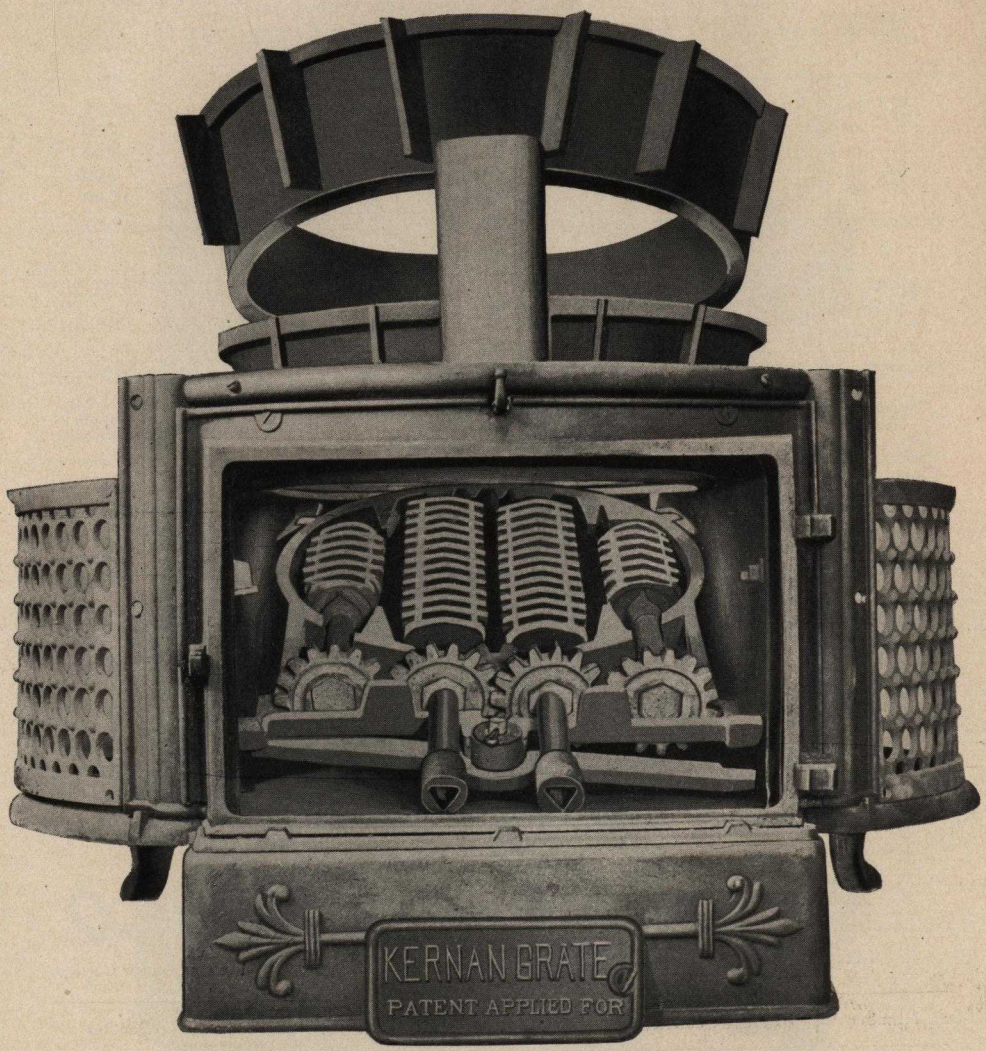
All our casings are lined with corrugated tin and asbestos

On account of extra height of steel radiator in making top or cone of casing add three inches to lower flange

KERNAN

K-O and K FIRE POT with KERNAN Shell Bar Rotating and Revolving GRATE

(Patent applied for)



As It Appears When Dumped

PERFECT COMBUSTION

NO CLINKER FORMATION

The above Cut also shows Skirt and Legs and Cold Air Plates for use in Stores, Halls, etc.

We sell to the trade only

"KERNAN WELCOME"

K-O, K, and K-D FURNACES

KERNAN

Shell Bar Rotating and Revolving

GRATE

(Patent applied for)

NOTE

Recommending itself is a Declaration of Prof. John E. Sweet of Cornell University, Professor of Practical Mechanics.

July 21, 1902

Francis Kernan, Esq.,
Syracuse, N. Y.:

Dear Sir—I find the area of the "Kernan" Grate to be 57 per cent. opening.

Yours truly,
JOHN E. SWEET

WE call special attention to and ask for the most thorough examination of the *Kernan Shell Bar Rotating and Revolving Grate.* We have given these Bars a long and severe test, and, for the first time in the history of heating apparatus, we are able to furnish a grate of the *Shell Bar* construction, which *allows* the *air* on *all sides to pass into* and *through* the *Bar,* giving to the Bars on their three sides a fire surface, thus causes the most thorough combustion in the fire pot, and, at the same time, by the complete circulation of air, in its cooling effect *preventing* the Bar from *twisting or warping.* The perfect Grate is as *essential* to the *successful furnace* for *economy* and *power* as it is under the large *locomotive* or *other* boilers.

The Kernan Shell Grate Bars are, without bolts, suspended within a removable frame. The grate frame or any bar may be easily replaced through the ash-pit door.

Our customers are not only able to sell to their trade a furnace with a grate of superior value in its durability, and in the economical consumption of fuel, free from clinkers, but also one which is protected by a patent, and which a competitor cannot manufacture or offer for sale.

Convenience and Ease of Setting Saves Much Labor

ADAPTED TO LOW CELLARS

We sell to the trade only

"KERNAN WELCOME"

K-D FURNACES

ALL CAST IRON OR WITH STEEL PLATE RADIATORS

A line of Furnaces possessing all the advanced ideas from a long manufacturing experience

Especially adapted for construction and operation work.

The following points recommend them:

1st. Massive boxed broadened fronts.

2d. Deep ash pit and large feed door.

3rd. All doors fitted to a straight line, retain their shape and hold the fire under perfect control.

4th. The low construction particularly adapts these Furnaces to low cellars.

5th. Perfect combustion and great radiating surface delivers a large volume of warmed air.

6th. The "Kernan" Grate insures perfect combustion.

7th. Radiator retards all the products of combustion until all available heat is radiated.

8th. The vertical corrugated surface of the fire pot and combustoin chamber gives the greatest amount of surface to the direct action of the fire.

9th. Deep cut expansion joints with fibre asbestos packing prevents all annoyance from dust, ashes, smoke and gas.

10th. Heavy sectional corrugated fire pots insure durability.

11th. Grate and frames can be removed through ash pit door.

We sell to the trade only.

"KERNAN WELCOME"

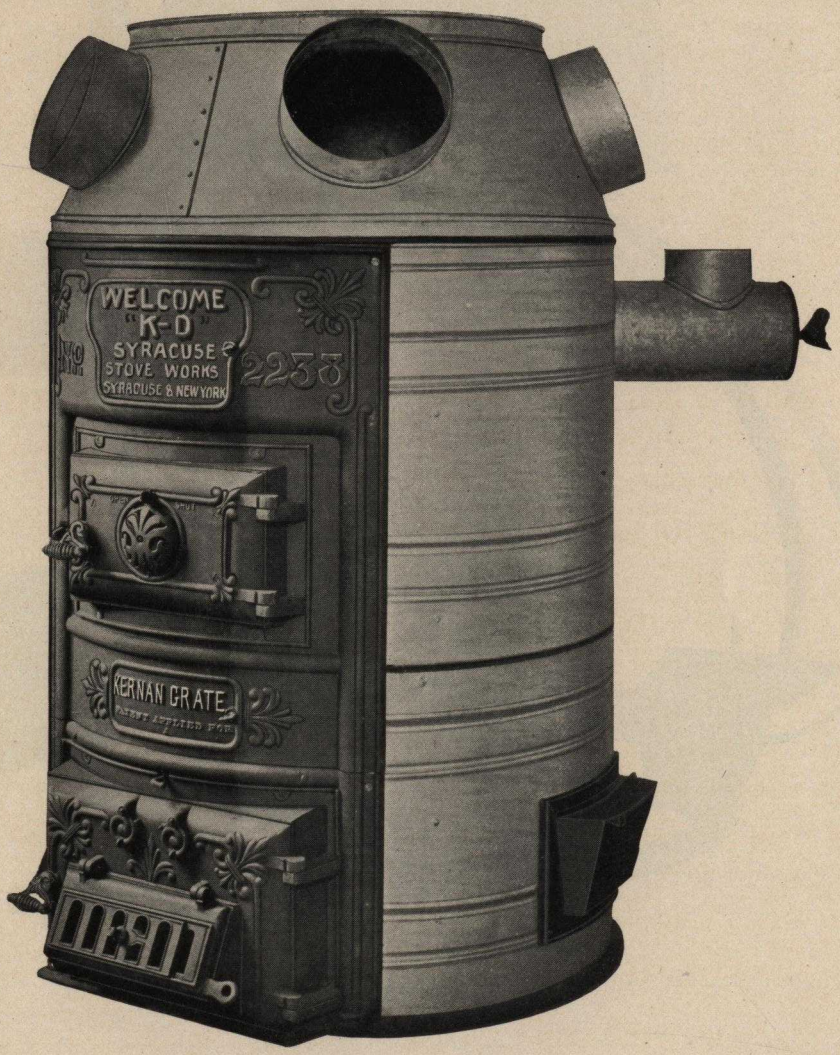
K-D FURNACES

WITH

KERNAN

SHELL BAR ROTATING AND REVOLVING GRATE

(Patent Applied For)



Full Cased in Seven Sizes

We sell to the trade only

"KERNAN WELCOME"

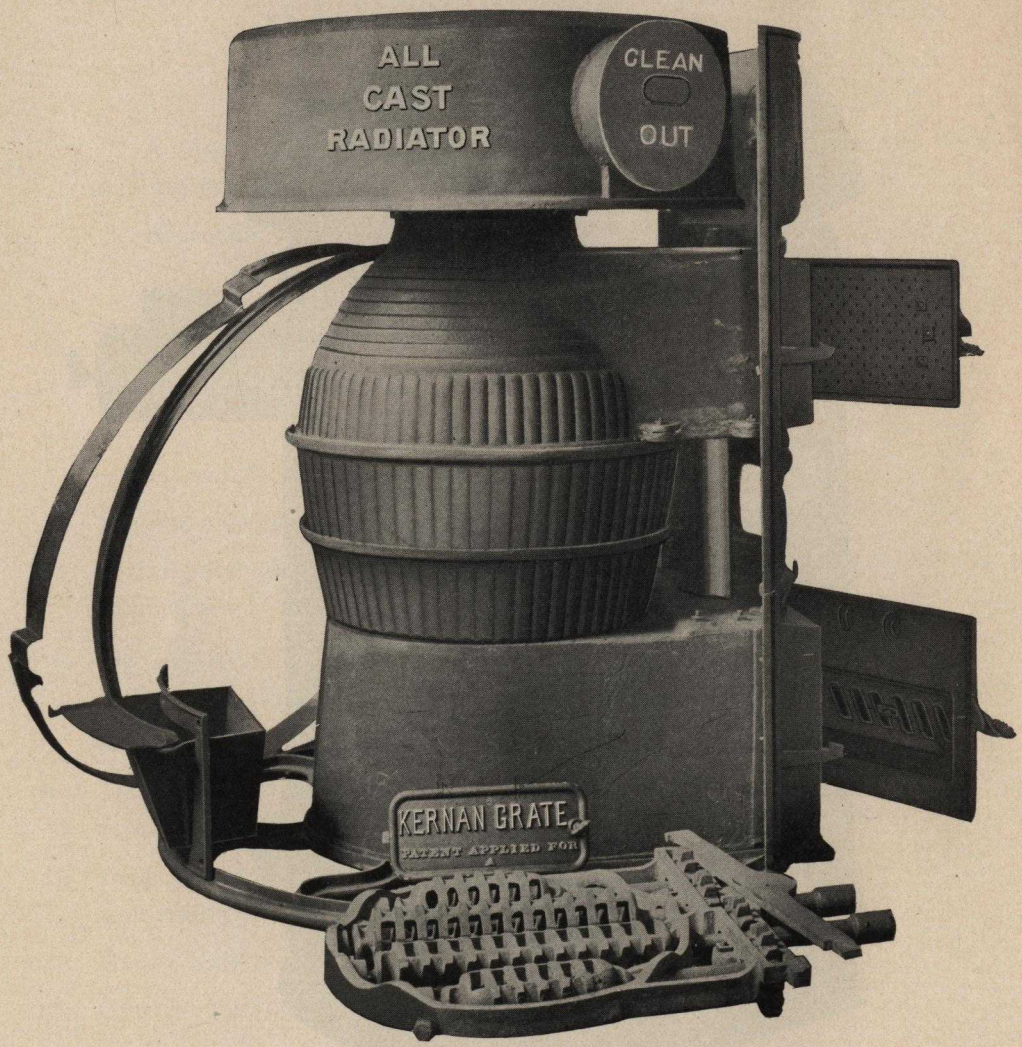
K-D FURNACES

WITH

KERNAN

SHELL BAR ROTATING AND REVOLVING GRATE

(Patent Applied For)



All Cast Iron

Made in Six Sizes—Nos. 20-34, 20-36, 22-38, 24-42, 26-46, 28-50

The Construction Particularly Adapts Them to Low Cellars

We sell to the trade only

"KERNAN WELCOME"

K-D FURNACE

WITH ALL CAST RADIATOR

Designating Number	List Priee Castings Only	List Price Corrugated Tin and Asbestos Lined Casings	List Price Casing Tops Only		List Price Skirts and Legs per Set	List Price Cold Air Plates per Set
			Flat	Cone		
"K-D" 20-34	$100.00	$22.50	$12.00	$13.00	$4.50	$6.50
"K-D" 20-36	108.00	23.75	12.50	14.00	4.75	$6.75
"K-D" 22-38	118.00	25.00	13.00	15.00	5.00	7.00
"K-D" 24-42	149.00	27.50	16.00	17.50	6.00	8.00
"K-D" 26-46	187.00	30.00	17.50	19.00	7.00	9.00
"K-D" 28-50	236.00	33.50	19.00	22.00	8.00	10.00

Discount--------Subject to change without notice.

DIMENSIONS

Designating Number	Diameter of Fire Pot	Depth of Fire Pot	Diameter of Casings	Height of Castings	Diameter of Smoke Pipe	Cold Air Supply Sq. Inches
"K-D" 20-34	20 in.	12 in.	34 in.	3 ft. 10 in.	7 in.	300
"K-D" 20-36	20 in.	12 in.	36 in.	3 ft. 10 in.	7 in.	350
"K-D" 22-38	22 in.	13 in.	38 in.	3 ft. 11 in.	7 in.	400
"K-D" 24-42	24 in.	13 in.	42 in.	4 ft.	7 in.	450
"K-D" 26-46	26 in.	14 in.	46 in.	4 ft. 2 in.	8 in.	500
"K-D" 28-50	28 in.	14 in.	50 in.	4 ft. 4 in.	8 in.	600

HEATING CAPACITIES

CUBIC FEET

Designating Number	For New York City and Vicinity — Also Territory South	For Chicago or Northern Territory
"K-D" 20-34	12,000 to 16,000	10,000 to 14,000
"K-D" 20-36	14,000 to 18,000	12,000 to 16,000
"K-D" 22-38	16,000 to 20,000	14,000 to 18,000
"K-D" 24-42	20,000 to 25,000	18,000 to 24,000
"K-D" 26-46	25,000 to 30,000	24,000 to 28,000
"K-D" 28-50	32,000 to 40,000	28,000 to 36,000

THIS System of Numbering shows
First: The Diameter of Fire Pots
Second: The Diameter of Casings

Approximately these Furnaces will heat an ordinary dwelling of the following number of Rooms:

No. 20-34	No. 20-36	No. 22-38	No. 24-42	No. 26-46	No. 28-50
3 to 4 Rooms.	4 to 6 Rooms.	5 to 7 Rooms.	7 to 9 Rooms.	9 to 11 Nooms.	11 to 13 Rooms.

We sell to the trade only

"KERNAN WELCOME"

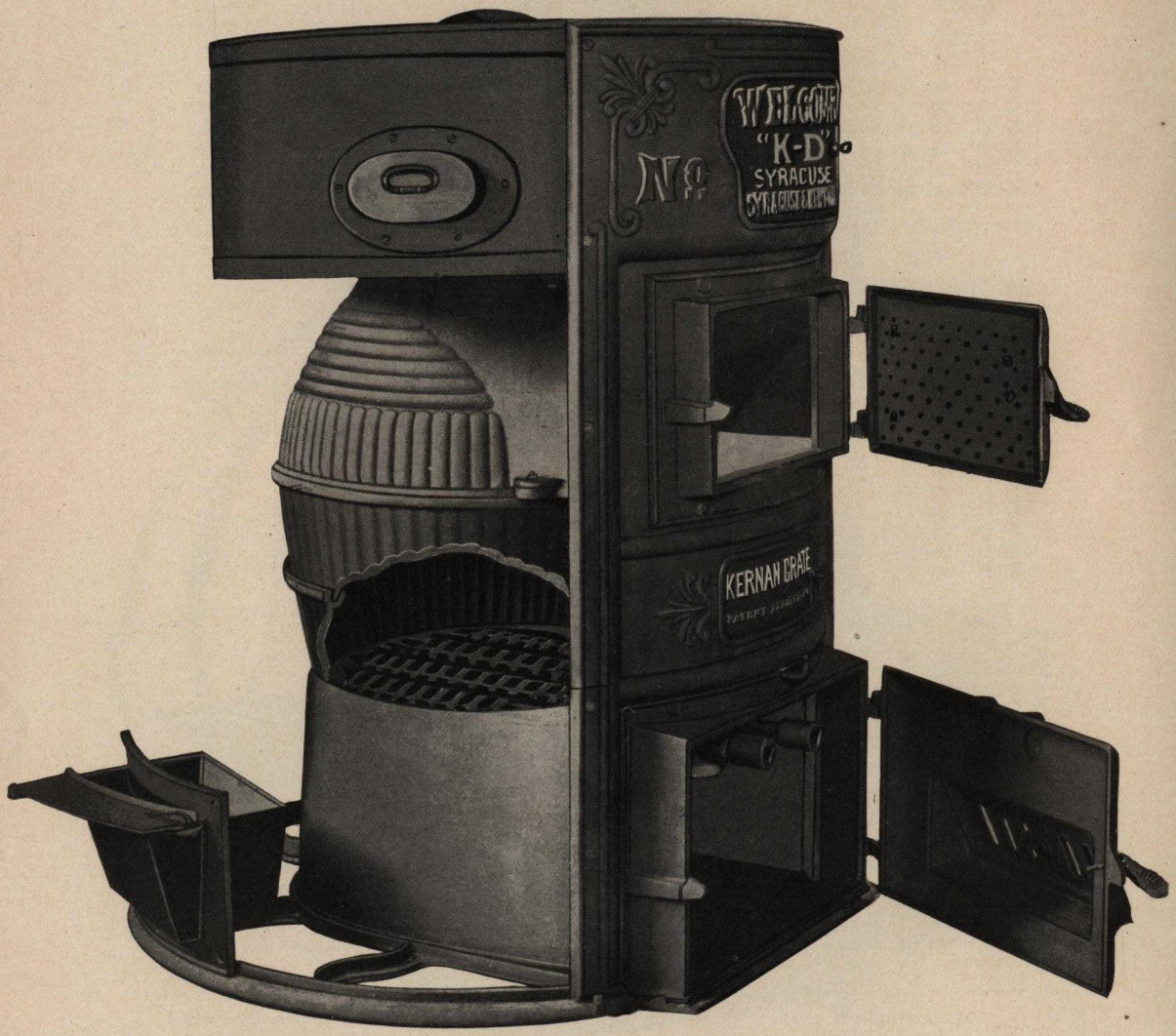
K-D FURNACE

WITH

KERNAN

SHELL BAR ROTATING AND REVOLVING GRATE

(Patent Applied For)



STEEL PLATE RADIATORS

Made in Seven Sizes—Nos. 18-30, 20-34, 20-36, 22-38, 24-42, 26-46, 28-50

The Low Cost, the Convenience and Ease of Setting,
Cannot Fail to Interest the Closest Buyer

We sell to the trade only

"KERNAN WELCOME"

K-D FURNACE

WITH STEEL PLATE RADIATOR

Designating Number	List Price Castings Only	List Price Corrugated Tin and Asbestos Lined Casings	List Price Casing Tops Only		List Price Skirts and Legs Per Set	List Price Cold Air Plates Per Set
			FLAT	CONE		
"K-D" 18-30	$76.00	$20.00	$9.00	$12.50	$4.20	$6.20
"K-D" 20-34	90.00	22.50	12.00	13.00	4.50	6.50
"K-D" 20-36	98.00	23.75	12.50	14.00	4.75	6.75
"K-D" 22-38	108.00	25.00	13.00	15.00	5.00	7.00
"K-D" 24-42	137.00	27.50	16.00	17.50	6.00	8.00
"K-D" 26-46	167.00	30.00	17.50	19.00	7.00	9.00
"K-D" 28-50	216.00	33.50	19.00	22.00	8.00	10.00

Discount.....Subject to change without notice

DIMENSIONS

Designating Number	Diameter of Fire Pots	Depth of Fire Pots	Diameter of Casings	Height of Castings	Diameter of Smoke Pipe	Cold Air Supply Sq Inches
"K-D" 18-30	18 in.	12 in.	30 in.	3 ft. 8 in.	7 in.	250
"K-D" 20-34	20 in.	12 in.	34 in.	3 ft. 10 in.	7 in.	300
"K-D" 20-36	20 in.	12 in.	36 in.	3 ft. 10 in.	7 in.	350
"K-D" 22-38	22 in.	13 in.	38 in.	3 ft. 11 in.	7 in.	400
"K-D" 24-42	24 in.	13 in.	42 in.	4 ft.	7 in.	450
"K-D" 26-46	26 in.	14 in.	46 in.	4 ft. 2 in.	8 in.	500
"K-D" 28-50	28 in.	14 in.	50 in.	4 ft. 4 in.	8 in.	600

HEATING CAPACITIES

CUBIC FEET

Designating Number	For New York City and Vicinity Also Territory South	For Chicago or Northern Territory
"K-D" 18-30	8,000 to 12,000	7,000 to 10,000
"K-D" 20-34	12,000 to 16,000	10,000 to 14,000
"K-D" 20-36	14,000 to 18,000	12,000 to 16,000
"K-D" 22-38	16,000 to 20,000	14,000 to 18,000
"K-D" 24-42	20,000 to 25,000	18,000 to 24,000
"K-D" 26-46	25,000 to 30,000	24,000 to 28,000
"K-D" 28-50	32,000 to 40,000	28,000 to 36,000

CASINGS

Our Casings are made of the best Galvanized Iron. Lined with Corrugated Tin and Asbestos.

With our Casings we furnish the Tee Joint for Smoke Connections and Lift Check Dampers.

Designating Number	Length to Cut Galvanized Iron for Casings Including 2-inch Lap		Width to Cut Galvanized Iron for Casings	
	Bottom Section	Top Section	Bottom Section	Top Section
"K-D" 18-30	6 ft.	6 ft.	21¼ in.	24⅞ in.
"K-D" 20-34	6 ft. 9½ in.	6 ft. 9½ in.	21⅜ in.	24⅛ in.
"K-D" 20-36	7 ft. 2½ in.	7 ft. 2½ in.	21⅛ in.	24½ in.
"K-D" 22-38	7 ft. 8½ in.	7 ft. 8½ in.	21½ in.	25⅜ in.
"K-D" 24-42	8 ft. 7¼ in.	8 ft. 7¼ in.	21½ in.	26 in.
"K-D" 26-46	9 ft. 5¼ in.	9 ft. 5¼ in.	22 in.	26 in.
"K-D" 28-50	10 ft. 3¼ in.	10 ft. 3¼ in.	23⅜ in.	26⅛ in.

We sell to the trade only

"KERNAN WELCOME"

K-D FURNACE

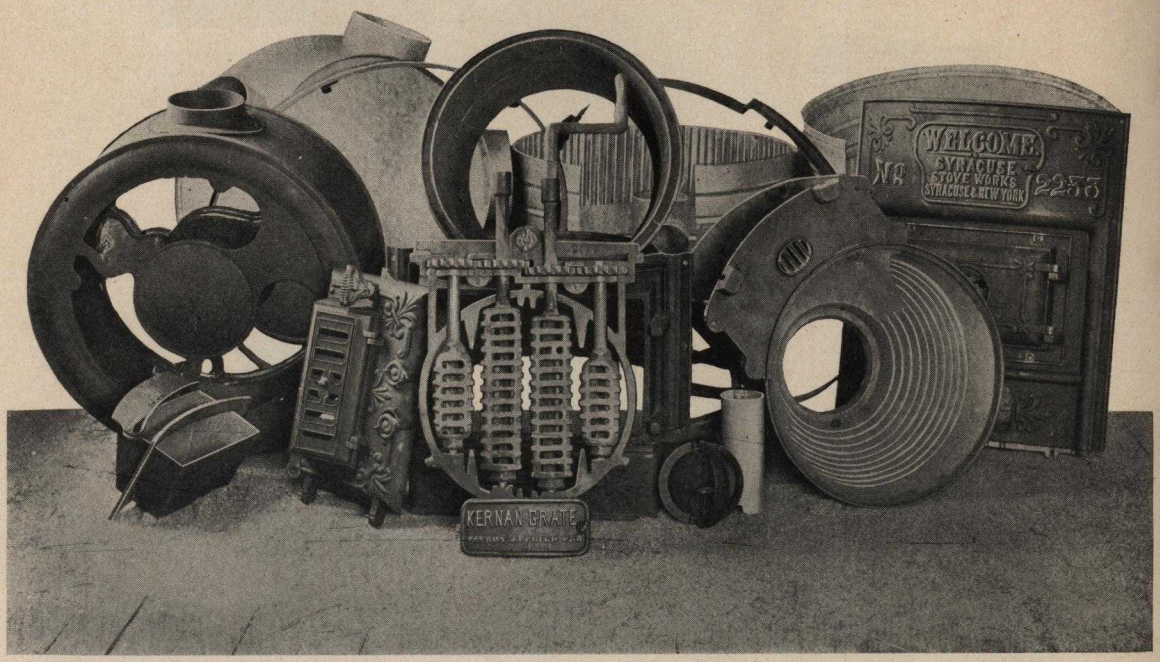
WITH

KERNAN

Shell Bar Rotating and Revolving

GRATE

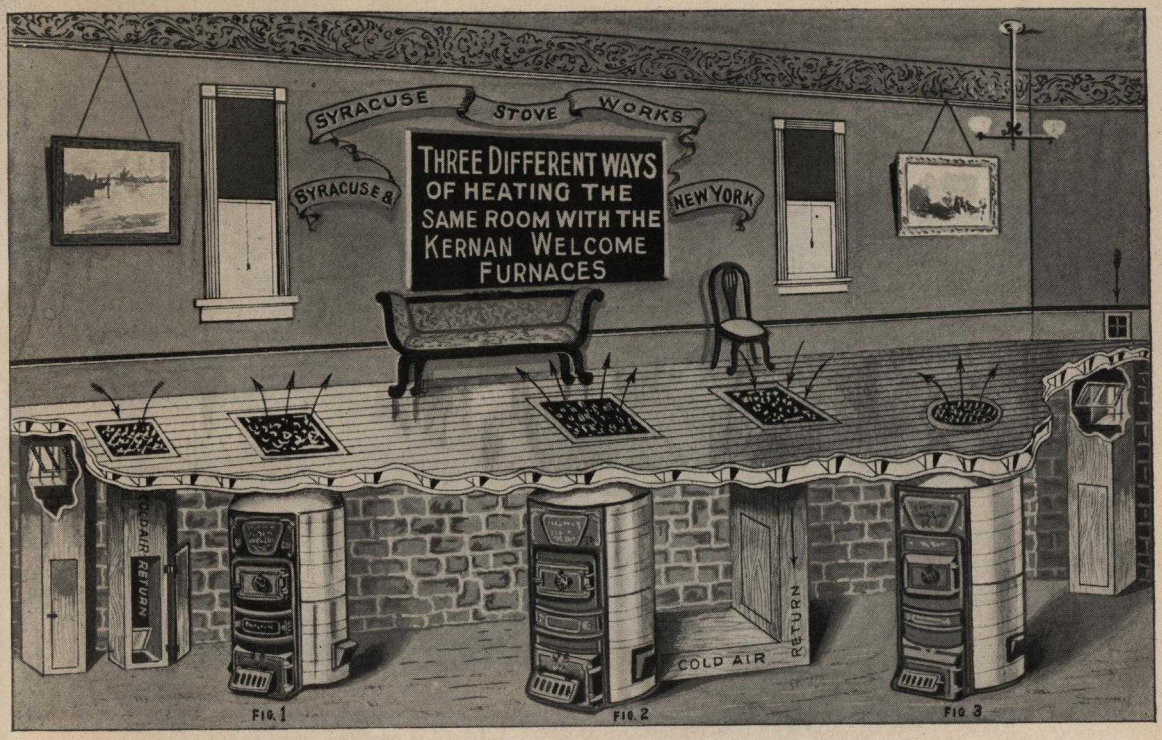
(Patent Applied For)



A Powerful, Economical and Modern Furnace

DUST AND GAS TIGHT

We sell to the trade only



The above cut illustrates the different methods of setting "Kernan Welcome" Furnaces to heat a store, hall, church, etc., with one hot air register face over the furnace and the cold air supply taken in different ways, viz.:

Figure No. 1 shows air supply taken both from inside and outside.

Figure No. 2 shows air supply taken from inside only.

Figure No. 3 shows air supply taken from outside only.

The following tables give for each size "Kernan Welcome" Furnace, the proper size register face for hot air, size of register face for inside cold air return, size of hot air pipe and cold air supply for furnaces set as per Figures *I* and *II* shown above.

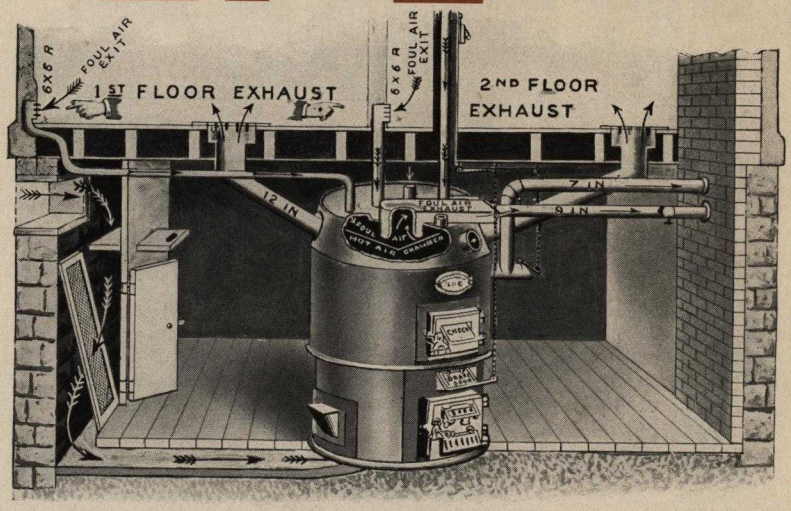
When a furnace is set as in Figure No. 3, of course, no cold air register face is used.

Size of Furnaces	Hot Air Face	Cold Air Face	Hot Air Pipe	Cold Air Supply
20-36 "Kernan Welcome" K & K-O	24x24	24x24	24"	400 sq. in.
22-38 " " " "	27x27	27x27	25"	450 " "
24-42 " " " "	27x38	27x38	27"	500 " "
26-46 " " " "	30x30	30x30	30"	600 " "
28-50 " " " "	48" round	48" round or 30x42	36"	700 " "
18-30 " " K-D	16x20	16x20	16"	250 " "
20-34 " " "	20x20	20x20	20"	300 " "
20-36 " " "	24x24	24x24	22"	350 " "
22-38 " " "	24x24	24x24	24"	400 " "
24-42 " " "	27x27	27x27	25"	450 " "
26-46 " " "	27x38	27x38	27"	500 " "
28-50 " " "	30x30	30x30	30"	600 " "

We sell to the trade only

"KERNAN WELCOME"

K-O, K, and K-D Furnaces



SYSTEM OF VENTILATION

SIMPLE IN ITS CONNECTION, it must appeal at once to every one in recommendation of its use for the MORE PERFECT VENTILATION AND HEATING OF YOUR RESIDENCE.

From EACH ROOM, or as many rooms as desired, VENTILATING EXHAUST PIPES ARE RUN, ventilating register being placed over each receiving box in base board, located in the colder and more remote part of room from the position of the register supplying the warm air. EACH VENTILATING EXHAUST PIPE, WITH TIGHTLY SOLDERED JOINTS, IS RUN SEPARATELY AND DIRECT TO THE EXHAUST CHAMBER IN THE CONE TOP OF FURNACE CASING, AS SHOWN BY CUT.

From this exhaust chamber we lead a large discharge pipe, DELIVERING TO THE OPEN AIR, BY THE AID OF THE HEATED CHIMNEY FLUE, THE AIR DRAWN FROM EACH ROOM CONNECTED BY THE SYSTEM.

The TEMPERATURE OF AIR DRAWN TO THE EXHAUST CHAMBER IS RAISED SUFFICIENT TO INCREASE THE VELOCITY, INSURING A VERY RAPID CHANGE OF AIR THROUGH THE HOUSE. EACH VENTILATING EXHAUST PIPE FROM EACH ROOM GOING TO EXHAUST CHAMBER AND PASSING DIRECTLY TO CHIMNEY, ASSURES A POSITIVE ACTION FROM EACH ROOM, OVERCOMING THE DANGER OF THE UPPER ROOM VENTILATING PIPES (being higher) drawing from the ventilating pipes in the rooms of the lower floors, which result is the case with systems of indirect connections.

By means of our ventilating device, we are CONSTANTLY REMOVING FROM EACH ROOM SO CONNECTED the air before it has become cooled by exposure, making room for the incoming warm air to flow to point of exhaust rapidly, maintaining even temperature throughout the apartment, and OVERCOMING THE INFLUENCE OF THE WIND OUTSIDE ON THE INDOOR AIR CURRENTS.

Heating of any building, especially a dwelling, with hot air furnace is MOST SUCCESSFULLY DONE WHERE THERE IS AN ACTIVE CHANGE OF AIR SUCH AS OUR SYSTEM ASSURES; by this means a change of air is constantly going on, thus a healthful condition is promoted. In this age, when so much attention is being given by those in charge of our schools to the subject of ventilation, even to requiring the change of every CUBIC FOOT OF AIR FOUR TIMES EACH HOUR, WHY should we not in our homes consider more carefully the modern methods of ventilating, AND THUS CARE FOR THE HEALTH OF OUR CHILDREN AT HOME BY PROVIDING PLENTY OF FRESH AIR?

Our recommendation of the system is not only supported by what must appear to you to be practicable, but by the hundreds that have it in use.

THE EXTRA EXPENSE IS SMALL

We sell to the trade only

For convenience in estimating we give below the list prices on the ordinary sizes of "Kernan Welcome" Registers used in furnace work in black and white Japanned and Nickel Plated finishes:

BLACK JAPANNED				WHITE JAPANNED		NICKEL PLATED		
Size of Opening	Register	Register Face	Floor Border	Register	Register Face	Register	Register Face	Floor Border
6 x 8	1.55	.90	1.00	1.85	1.20	2.80	2.15	2.30
6 x 10	1.60	.95	1.05	1.95	1.30	3.00	2.35	2.40
7 x 10	1.65	1.00	1.05	2.00	1.30	3.10	2.45	2.50
8 x 8	1.60	.95	1.00	1.95	1.30	3.00	2.35	2.50
8 x 10	1.65	1.00	1.05	2.00	1.35	3.15	2.50	2.55
8 x 12	1.90	1.15	1.15	2.30	1.55	3.65	2.80	2.80
9 x 12	2.10	1.35	1.30	2.55	1.80	4.00	3.25	3.25
9 x 14	3.10	1.70	1.95	3.70	2.30	5.20	3.80	4.10
10 x 12	2.40	1.50	1.35	2.90	2.00	4.40	3.50	3.35
10 x 14	3.15	1.75	2.00	3.80	2.40	5.25	3.85	4.10
10 x 16	4.85	2.75	2.80	5.85	3.70	7.20	5.20	5.25
12 x 14	4.35	2.60	2.65	5.25	3.50	6.85	5.10	5.15
12 x 15	4.50	2.70	2.70	5.00	3.60	7.00	5.25	5.25
12 x 18	6.80	3.70	3.35	8.15	5.00	9.55	6.45	6.10
14 x 16	8.50	4.00	4.00	10.20	5.70	11.50	6.95	6.95
14 x 18	9.00	4.25	4.25	10.80	6.00	12.00	7.25	7.25
14 x 20	9.50	4.50	4.45	11.40	6.40	12.60	7.60	7.50
14 x 22	10.50	5.00	4.85	12.60	7.10	14.00	8.50	8.40
16 x 20	12.25	5.70	5.40	14.70	8.15	16.00	9.50	9.35
16 x 24	15.00	6.50	6.10	18.00	9.50	19.50	10.50	10.20
20 x 24	22.00	8.20	7.50	26.40	12.60	28.20	14.50	14.00
20 x 26	23.50	9.00	7.90	28.20	13.70	32.00	16.00	15.00
21 x 29	29.00	10.00	8.80	34.80	15.80	39.50	19.00	17.00
24 x 24	30.00	10.00	8.85	36.00	16.00	38.00	20.00	18.50
27 x 27	37.25	14.00	11.50	44.70	21.45	48.00	25.00	22.00
27 x 38	56.00	22.00	15.90	67.20	33.20	75.00	41.50	32.50

SQUARE CONVEX REGISTERS			
Size of Opening	Black Japanned	White Japanned	Nickel Plated
6 x 8	2.20	2.65	3.45
6 x 10	2.30	*2.55	3.70
7 x 10	2.35	2.85	3.85
8 x 10	2.40	2.90	3.90
8 x 12	2.70	3.25	4.45
9 x 12	3.00	3.60	4.90
9 x 14	3.90	4.70	6.10
10 x 10	3.45	4.15	5.45
10 x 12	3.75	4.50	5.75
10 x 14	5.00	6.00	7.10

CIRCULAR TOP REGISTERS			
Size of Opening	Black Japanned	White Japanned	Nickel Plated
7 x 10	1.90	2.30	3.30
8 x 10	2.15	2.55	3.65
8 x 12	2.35	2.80	4.00
9 x 12	2.65	3.15	4.75
10 x 14	4.10	4.90	6.00

CIRCULAR TOP CONVEX REGISTERS			
Size of Opening	Black Japanned	White Japanned	Nickel Plated
8 x 12	2.95	3.50	4.65
9 x 12	3.30	4.00	5.20
10 x 14	5.50	6.50	7.60

ROUND REGISTERS, FACES AND BORDERS

BLACK JAPANNED				WHITE JAPANNED		NICKEL PLATED	
Size of Opening	Register	Face	Border	Register	Face	Register	Border
6 in.	1.50	.80	.95	1.80	1.15	2.70	2.25
7 "	1.55	.90	1.00	1.90	1.25	2.90	2.45
8 "	1.60	.95	1.00	1.95	1.30	3.00	2.50
9 "	2.00	1.30	1.25	2.40	1.70	3.90	3.20
10 "	2.35	1.45	1.30	2.85	1.95	4.35	3.30
12 "	4.00	2.50	2.60	4.80	3.30	6.35	5.05
14 "	7.90	3.80	3.60	9.50	5.40	10.95	6.45
16 "	11.00	5.10	4.85	13.20	7.30	14.50	8.40*
20 "	19.00	7.35	6.85	22.80	11.15	23.50	11.50
24 "	30.00	10.00	8.85	36.00	16.00	38.00	18.00
30 "	49.00	18.00	16.10	58.80	27.80	60.00	26.50
36 "	80.00	32.50	23.50	96.00	48.50	98.00	47.00
42 "	*	41.25	26.75				
48 "		50.00	30.00				

We sell to the trade only

"Kernan Welcome" Registers

GRAECO-ROMAN DESIGN

Table showing the different sizes of "Kernan Welcome" Hot Air Registers used in furnace practice, together with the eqnivalents of the capacity of the same in round leader pipes from furnace with elevation of at least one inch to the foot, also equivalent in riser pipes (or stacks), and also the cubic feet of space on first, second and third floors, which said registers, with their proper round and square pipes, will heat. This table is based on normal conditions, with run pipes of usual length, and is intended to show the size of registers and pipes necessary to raise the temperature of air from zero outside to seventy degrees on the inside with reasonable time without forcing. The sizes that are marked with an asterisk are those recommended for general use. The larger the register the less resistance to the flow of heated air, but sizes mentioned will produce good results. In planning work arrange to use the sizes referred to.

Size of Register	Equivalent in Round or Leader Pipe	Equivalent in Square or Riser Pipe	Cubic Feet of Space on First Floor Same will Heat	Cubic Feet on Second Floor	Cubic Feet on Third Floor
6 x 8 in.	6 in.	4 x 8 in.	400	450	500
* 8 x 8 in.	7 in.	4 x 10 in.	450	500	560
* 8 x 10 in.	8 in.	4 x 10 in.	500	850	880
* 8 x 12 in.	8 in.	4 x 11 in.	800	1000	1050
* 9 x 12 in.	9 in.	4 x 12 in.	1050	1250	1320
* 9 x 14 in.	9 in.	4 x 14 in.	1050	1350	1450
*10 x 12 in.	10 in.	4 x 14 in.	1500	1650	1800
*10 x 14 in.	10 in.	6 x 10 in.	1800	2000	2200
10 x 16 in.	10 in.	6 x 10 in.	1800	2000	2200
12 x 14 in.	12 in.	6 x 12 in.	2200	2300	2500
*12 x 15 in.	12 in.	6 x 12 in.	2500	2300	2500
*12 x 17 in.	12 in.	6 x 14 in.	2300	2600	2800
12 x 19 in.	12 in.	6 x 14 in.	2300	2600	2800
*14 x 18 in.	14 in.	6 x 16 in.	2800	3000	3200
*14 x 20 in.	14 in.	6 x 16 in.	2900	3000	3200
*14 x 22 in.	14 in.	8 x 16 in.	3000	3200	3400
*16 x 20 in.	16 in.	8 x 18 in.	3600	4000	4250
*16 x 24 in.	16 in.	8 x 18 in.	3700	4000	4250
*20 x 24 in.	18 in.	10 x 20 in.	4800	5400	5750
*20 x 26 in.	20 in.	10 x 24 in.	6000	7000	7450

*Standard sizes recommended

Sizes of Hot Air Pipes and "Kernan Welcome" Registers to be Used in

FIRST FLOOR ROOMS				SECOND FLOOR ROOMS			
Register	Pipe	Rooms	Ceiling	Register	Pipe	Rooms	Ceiling
12 x 15	12 in.	16 x 16 to 18 x 20	11 ft.	10 x 14	10 in.	16 x 16 to 18 x 20	10 ft.
10 x 12 or 10 x 14	10 in.	14 x 14 to 15 x 15	10 ft.	9 x 12	9 in.	14 x 14 to 16 x 16	9 ft.
9 x 12	9 in.	12 x 12 to 14 x 15	9 ft.	8 x 12	8 in.	10 x 10 to 13 x 14	8 ft.
8 x 12	8 in.	8 x 12 to 13 x 13	9 ft.	8 x 10	7 in.	7 x 12 to 12 x 12	8 ft.

We sell to the trade only

"Kernan Welcome" Registers

GRAECO-ROMAN DESIGN

We give the following Table of Capacities of Pipes and "Kernan Welcome" Registers

ROUND PIPES

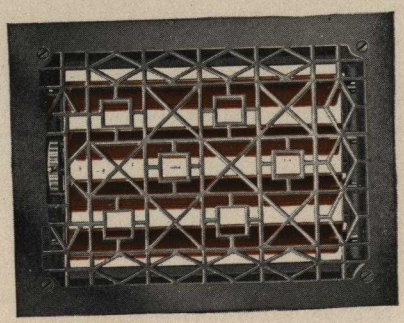
Diameter of Pipe	Area in Square Inches
7 in.	38
8 in.	50
9 in.	63
10 in.	78
11 in.	95
12 in.	113
14 in.	154
16 in.	201
18 in.	254
20 in.	314
22 in.	380
24 in.	452
26 in.	531
28 in.	616
30 in.	707
36 in.	950

CAPACITY OF "KERNAN WELCOME" REGISTERS

6 x 10	48 in.	12 x 15	140 in.	20 x 20	320 in.
6 x 12	56 in.	12 x 16	149 in.	20 x 24	384 in.
6 x 18	83 in.	12 x 17	161 in.	20 x 26	416 in.
8 x 10	61 in.	12 x 18	167 in.	21 x 29	487 in.
8 x 12	73 in.	12 x 19	176 in.	24 x 24	454 in.
8 x 15	91 in.	14 x 16	177 in.	24 x 30	567 in.
9 x 12	83 in.	14 x 18	203 in.	24 x 32	603 in.
9 x 14	91 in.	14 x 20	224 in.	24 x 36	680 in.
10 x 10	76 in.	14 x 22	246 in.	27 x 27	574 in.
10 x 12	93 in.	16 x 20	306 in.	27 x 38	815 in.
10 x 14	113 in.	16 x 24	342 in.	30 x 30	708 in.
10 x 16	128 in.	18 x 18	259 in.	30 x 36	882 in.
12 x 12	112 in.	18 x 21	302 in.		
12 x 14	137 in.	18 x 24	346 in.		

"KERNAN WELCOME" ROUND REGISTERS

Opening	Square Inches
7	26
8	33
9	42
10	52
12	75
14	103
16	134
18	169
20	209
24	300
30	471
36	679
48	1207



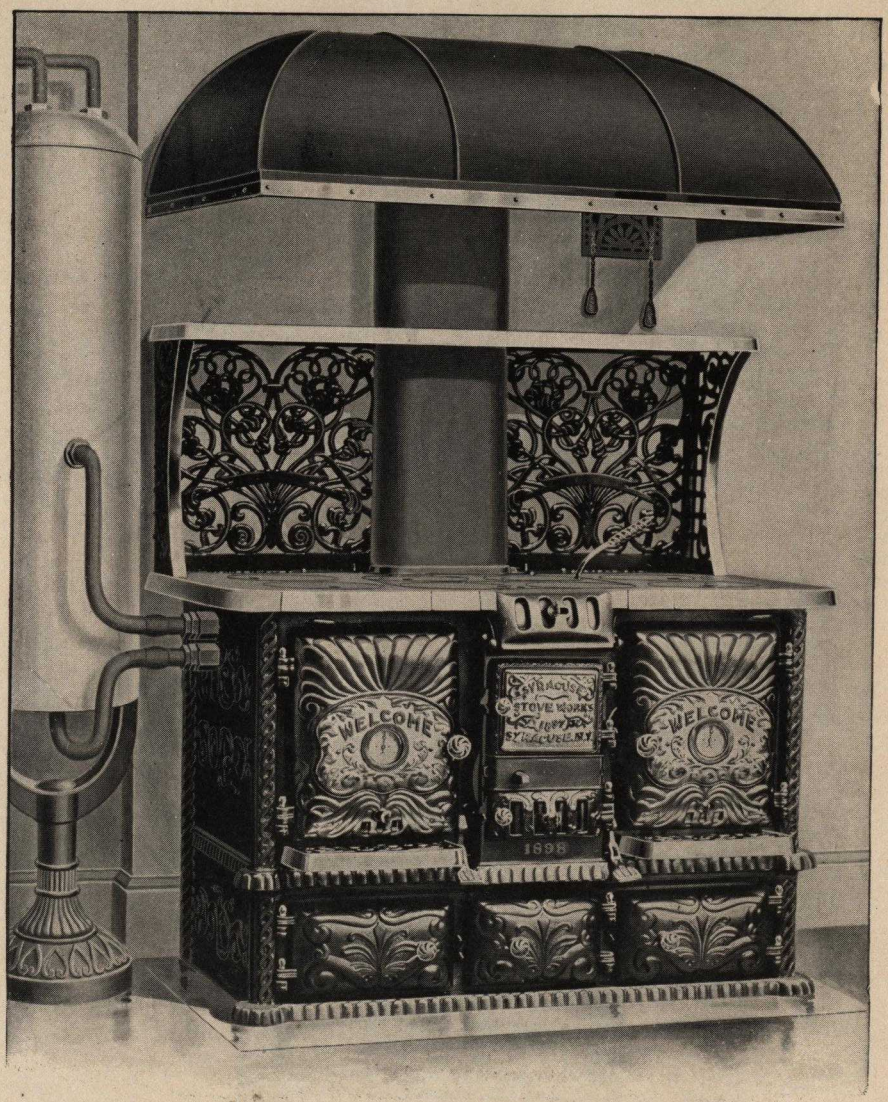
We manufacture a complete line of Registers and would be pleased to send catalogue and quote prices

We sell to the trade only

"KERNAN WELCOME"

K

DOUBLE-OVEN RANGE



Portable form. Abundant hot water supply. Oven thermometer always showing temperature of ovens. Popular with all. Large hot closets, ash-pit and ash-pan. On full low closet, high shelf, panels and brackets, canopy, ventilating registers and thermometers. No sheet metal ovens to burn out or warp out of shape.

We manufacture a complete line of Stoves and Ranges and would be pleased to send Catalogue and quote prices

We sell to the trade only

THE CELEBRATED

"KERNAN WELCOME"

K

Single-Oven Ranges

ARE

The Heaviest and Strongest Made

Largest Variety of Sizes All of the Sheet Flue Construction
Appreciated and Recommended by All Using Them
Exquisitely Neat in Appearance

Large Tops

Six Covers

Right or Left Hand

Portable or Brick Set Forms

Full Low Closet,
Ash Sifter and Pan

We manufacture a complete line of Stoves and Ranges, and would be pleased to send catalogue and quote prices

We sell to the trade only

"KERNAN WELCOME"

D

A High Grade Six-Hole Range

FOR COAL OR WOOD

Nos. 8-18, 9-18, 8-20, 9-20 Ovens full size, 18 x 18, 20 x 20

A Handsome Full Size Six-Hole Range

Dockash, Duplex or Wood Grates, which may be removed without disturbing the linings. Extension Wood Box and large Broiling Door. Sheet Flue and protected top oven plates. A Range which the wise dealer recommends and sells.

We manufacture a complete line of Stoves and Ranges and would be pleased to send catalogue and quote prices

We sell to the trade only

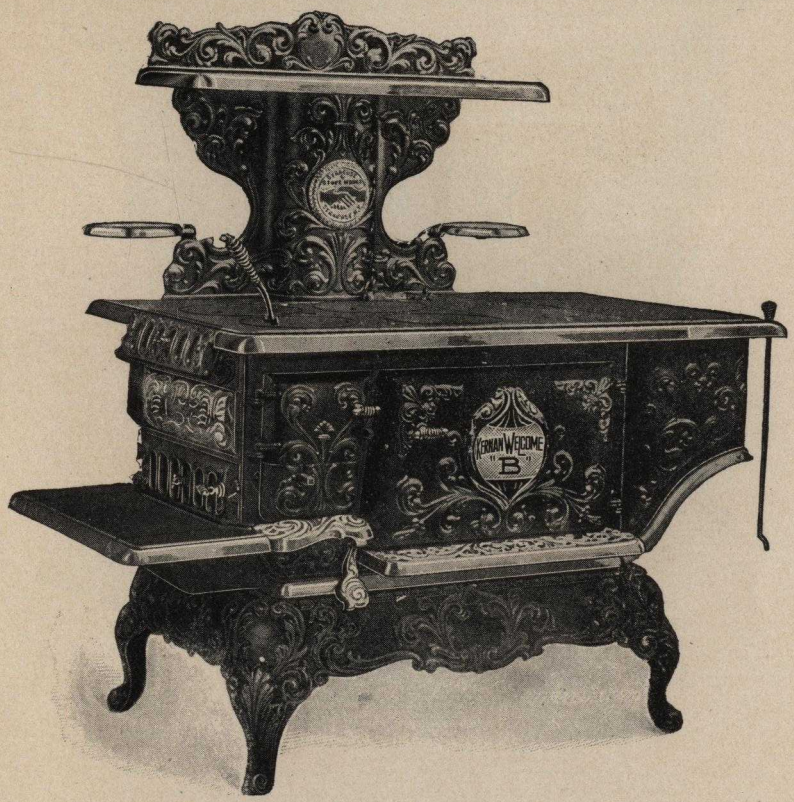
"KERNAN WELCOME"

B

A First-class Medium Price Four-hole Range

FOR COAL OR WOOD

Nos. 8-18, 9-18, 8-20, 9-20 Ovens full size, 18 x 18, 20 x 20



Made with Duplex, Dockash and Wood Grates, patented Fire Box and Covers, Drop End Hearth, Large Reservoir with drip rim, Nickel Bands.

A Large, Handsome, Modern Range and a Ready Seller

A Quick Baker with Economy in the Use of Fuel

We manufacture a complete line of Stoves and Ranges and would be pleased to send catalogue and quote prices

We sell to the trade only

"WELCOME"
CALDRON FURNACE

For Coal or Wood

Patented April 3, 1900

Modern in Design and Perfect in Operation

Made with sectional body, which provides for expansion and ease in repairing. The flue strip arrangement compels the heat products to travel completely around the kettle before making the exit, thus economizing fuel. Improved grate which can be removed through the front door.

We manufacture a complete line of Stoves and Ranges, and would be pleased to send catalogue and quote prices.

We sell to the trade only

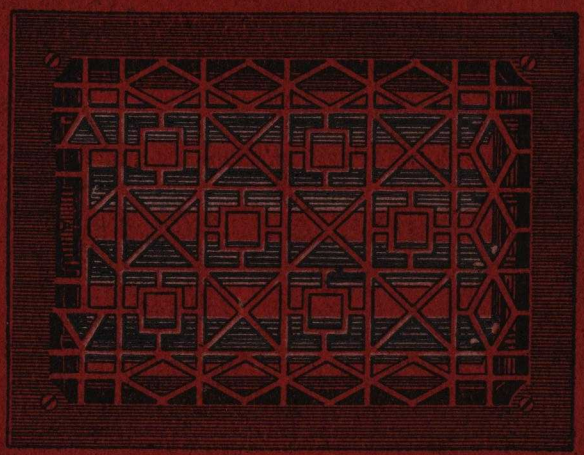
KERNAN

Shell Bar Rotating and Revolving Grate

(Patent Applied For)

KERNAN WELCOME

REGISTERS



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